Amendments to the Claims

Please amend claims 1-3, 5-6, 8, 10-17, and 19 as set forth below, without prejudice or disclaimer, to correct grammatical errors and to eliminate multiple dependencies. Please cancel claims 4, 7, 9, and 18, without prejudice or disclaimer.

CLAIMS

- 1. (Currently amended) A control valve arrangement for use in controlling fuel pressure within a control chamber (30), the control valve arrangement including a control valve member (32) which is movable between a first position to engage a first seating in which the control chamber (30) communicates with a source of high pressure fuel, and a second position to engage a second seating in which the control chamber (30) communicates with a low pressure fuel drain and communication between the control chamber (30) and the source of high pressure fuel is broken, wherein the first seating is defined by a surface of a bore provided in a valve housing within which the control valve member is movable; and a restricted flow pathmeans (55;70; 86) for restricting the rate of flow of fuel from the control chamber (30) to the low pressure fuel drain when the control valve member (32) is moved from the first position to the second position, wherein the restricted flow path comprises a restricted flow passage being located between the first seating and the second seating.
- 2. (Currently amended) A control valve arrangement as claimed in Claim 1, wherein the restricted flow <u>pathmeans</u>-is further operable for restricting the rate of fuel flow from the high pressure fuel source to the low pressure drain when the control valve member (32) is being moved between the second position and the first position, thereby to reduce the loss of high pressure fuel to low pressure.

- 3. (Currently amended) A control valve arrangement as claimed in Claim 1 or Claim 2, wherein the restricted flow pathmeans is arranged so that fuel flow rate out of the control chamber (30) to the low pressure drain is relatively low whereas the fuel flow rate into the control chamber (30) is relatively high, thereby providing asymmetric control valve operation.
- 4. (Cancelled) A control valve arrangement as claimed in any one of Claims 1 to 3, wherein the control valve member (32) is engageable with a first seating (38) when in the first position and with a second seating (44) when in the second position, wherein the first seating (38) is defined by a surface of a bore (34) provided in a valve housing (36) within which the control valve member (32) is movable.
- 5. (Currently amended) A control valve arrangement as claimed in any-one of Claims 1-to 3, wherein the control valve member (32) is engageable with a first seating (38) when in the first position and with a second seating (44) when in the second position, wherein the control valve member (32) is movable within thea bore (34) provided in thea valve housing (36) and wherein an insert (60) is arranged within the bore (34) in the valve housing (36), the insert defining to define the first seating (38).
- 6. (Currently amended) A control valve arrangement as claimed in Claim 1 4 or Claim 5, wherein the second seating (44) is defined by surface of the bore (34) provided in the valve housing (36).
- 7. (Cancelled) A control valve arrangement as claimed in any one of Claims 4 to 6, wherein the restricted flow means comprise a restricted flow passage (55) defined by an outer surface of the control valve member (32) and the bore (34) in the valve

housing (36).

- 8. (Currently amended) A control valve arrangement as claimed in Claim 71, wherein the control valve member (32) is shaped such that the restricted flow passage (55) is defined, in part, by a control flat provided on the outer surface of the control valve member (32).
- 9. (Cancelled) A control valve arrangement as claimed in Claim 7 or Claim 8, wherein the restricted flow passage (55) is located in between the first seating (38) and the second seating (44).
- 10. (Currently amended) A control valve arrangement as claimed in any of Claims 14 to 9, wherein the restricted flow pathmeans-is arranged upstream of the first seating (38) and downstream of the second seating (44).
- 11. (Currently amended) A control valve arrangement as claimed in any of Claims 14 to 9, wherein the restricted flow pathmeans is arranged downstream of the first seating (38), between the first seating (38) and the low pressure drain.
- 12. (Currently amended) A control valve arrangement as claimed in any of Claims 1 to 11, wherein the restricted flow pathmeans is defined by an orifice (70) provided in the control valve member (32).
- 13. (Currently amended) A control valve arrangement as claimed in any of Claims 1 to 12, wherein the control valve arrangement includes a by pass flow pathmeans (80, 86) arranged within the control chamber (30).
- 14. (Currently amended) A control valve arrangement as claimed in Claim

- 13, wherein the by pass flow means includes path is provided with a plate valve arrangement including a plate valve member (80) provided with a control orifice (86) extending therethrough.
- 15. (Currently amended) A control valve arrangement as claimed in Claim 14, wherein a wall of the control chamber defines a plate valve seating (90), whereby the plate valve member (80) is moveable against the plate valve seating (90) by means of fuel pressure within the control chamber (30), so as to ensure the flow of fuel from the control chamber (30) passes through the control orifice (86) when the plate valve member (80) is engaged with the plate valve seating (90).
- 16. (Currently amended) A control valve arrangement as claimed in Claim 15, wherein the control chamber (30) is shaped to define a by pass flow passage around the plate valve member, whereby a substantially unrestricted flow of fuel can enter the control chamber (30) when the plate valve member (80) is urged away from the plate valve seating (90).
- 17. (Currently amended) A fuel injector for use in delivering fuel to an internal combustion engine, the fuel injector comprising a valve needle which is engageable with a valve needle seating, in use, to control fuel delivery through an outlet opening, a surface associated with the valve needle being exposed to fuel pressure within a control chamber, and a control valve arrangement as claimed in Claim 1 for controlling fuel pressure within the control chamber (30) so as to control fuel injection and operable in response to fuel pressure within the control chamber (30) so as to permit a restricted fuel flow rate out of the control chamber (30) during valve needle lift and an increased fuel flow rate into the control chamber (30) during pressurisation of the control chamber (30) to terminate injection.

- 18. (Cancelled) A fuel injector for use in delivering fuel to an internal combustion engine comprising a valve needle which is engageable with a valve needle seating, in use, to control fuel delivery through an outlet opening, a surface associated with the valve needle being exposed to fuel pressure within a control chamber (30), and a control valve arrangement as claimed in any of Claims 1 to 17 for controlling fuel pressure within the control chamber (30).
- 19. (Currently amended) A fuel injection system for an internal combustion engine comprising a fuel injector as claimed in Claim 17-or Claim 18.